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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Damnjanovic et. al.

Serial No.: 10/040,542

Filed: January 4, 2002

For: Reverse Link Power Control in 1xEV-DV Systems

Attorney's Docket No: 4740-030

Patent Pending

Examiner: Mr. Raymond S. Dean

Group Art Unit: 2684

Confirmation No.:2444

Mail Stop Appeal Brief - Patents
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November 7, 2005
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Season E. Munck

COVER LETTER ACCOMPANYING APPEAL BRIEF

Attached please find Applicant's Appeal Brief for the above-identified matter. Check No. 16378 in the amount of $ 620 is enclosed to cover the $500 appeal brief fee and the $120 fee due for the 1-mo. extension of time. If further amounts or other fees are due for entry of the accompanying appeal brief, the Commissioner is hereby authorized to charge them to Deposit Account 18-1167.

Respectfully submitted,

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Dated: November 7, 2005

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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APPEAL BRIEF

I. REAL PARTY IN INTEREST

The real party in interest is Telefonaktiebolaget L.M. Ericsson.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences to the best of Applicant's knowledge.

III. STATUS OF CLAIMS

Claims 1-85 stand pending in the application, with all claims rejected. Applicant appeals the rejection of all claims.

IV. STATUS OF AMENDMENTS

No amendments were submitted after final rejection and all prior amendments have been entered.

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V. SUMMARY OF CLAIMED SUBJECT MATTER

The rejected claims under appeal include independent claims 1, 25, 32, 57, and 78. All claims address reverse link power control in wireless communication networks. Claim 1 is a method claim directed to mobile station operation, while claim 57 represents a corresponding apparatus claim. Claim 32 is similar to method claim 1, but specifies the reverse link channels involved in the power control. Claims 25 and 78 are corresponding method and apparatus claims from a base station perspective, and may be considered as complementing the mobile station operations detailed in claims 1 and 57.

Using Fig. 1 as a basis for discussion, claim 1 in detail is directed to a method of controlling the transmit power of a mobile terminal 100 in a mobile communication system 10, wherein the method includes varying a first transmit power level of the mobile station 100 on a first reverse link channel responsive to power control commands from a serving base station 12, and varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station. See, e.g., the instant specification at p. 6, lines 1-9. See, also, the illustration of separately controlling a Reverse Traffic Channel (R-TCH) and a Reverse Rate Control Channel (R-RCCH) at a mobile station 100 according to various embodiments in Figs. 5 and 9-11.

The power control method of claim 1 contrasts with the "standard" approach to reverse link power control adopted in CDMA-based communication systems. The instant specification explains this standard approach at, for example, p. 4, lines 2-9. In standard power control, all base stations participating in soft handoff of a mobile station—i.e., the "active set" base stations—individually send power control commands to the mobile station to control its reverse link power based on whether the individual base station receives the mobile station's reverse link transmissions above or below a signal strength target. Thus, differences in reverse link quality between the mobile station and each active set base station mean that the power control

commands generated by one active set base station likely will be different than the commands generated by the other active set base stations during the same command interval.

The conventional mobile station reconciles the potentially conflicting power control commands as follows. If any active set base station sends a "down" command, the mobile station incrementally decreases the power of all its reverse link channels—this is called "OR" of the downs logic. Conversely, if all active set base stations simultaneously send a "up" command, the mobile station incrementally increases the power of all its reverse link channels—this is called "AND" of the ups logic.

The instant application explains at p. 4, lines 10-15, that in some types of networks, such as 1xEV systems, only one active set base station at a time, referred to as the "serving" base station, sends data to a mobile station on the forward link. The serving base station is selected from the active set base stations based on determining which active set base station has the best forward link to the mobile station, and the data transmission rate from the serving base station is set by rate control feedback from the mobile station—see, e.g., p. 4, lines 20-25.

If conventional power control is used, the serving base station approach gives rise to "link imbalance" problems, as described in the instant specification at p. 19, lines 7-17. As explained there, link imbalance arises when the best forward link is not the same as the best reverse link, i.e., the reverse link between a mobile station and the serving base station in its active set of base stations is not as good as the reverse link between the mobile station and one of the non-serving base stations in its active set of base stations. More particularly, with link imbalance, the likelihood is that the non-serving base station will drive down the reverse link transmit power of the mobile station to the point that the serving base station cannot reliably receive the mobile station's reverse link transmissions, e.g., it will not reliably receive the rate control information being sent by the mobile station.

The instant invention as claimed in method claim 1 addresses the above problem by allowing a mobile station 100, such as shown in Fig. 1 of the instant application, to control the reverse link transmit power of one channel being transmitted by it based on the power control commands from a serving base station in an active set of base stations 12, while controlling the reverse link transmit power of another channel being transmitted by it based on the power control commands from the non-serving base station(s) in its active set of base stations 12. For example, as explained at p. 21, lines 16-24 and in Fig. 6, the mobile station 100 may be configured such that the serving base station 12 power controls the mobile station's reverse pilot and reverse rate control channels, while the non-serving base stations 12 power control the mobile station's reverse traffic channel.

Independent claim 57 is a mobile station apparatus claim that corresponds to the functionality of method claim 1. In more detail, claim 57 specifies a receiver to receive power control commands from serving and non-serving base stations—see, e.g., receiver 120 and digital modem 155 of Fig. 2—and power control logic to vary the power level of a first reverse link channel responsive to serving base station commands and the power level of a second reverse link channel responsive to non-serving base station commands—see, e.g., the MCU 101 of Fig. 2. More particularly, the instant specification at p. 11, lines 6-11, explains that the MCU 101 of the mobile station 100 as shown in Fig. 2 may be configured to carry out closed loop power control according to the methods detailed and claimed.

Independent claim 32 is similar to claims 1 and 57 in that it is directed a method of power control in a mobile station. However, claim 32 calls out specific channel types at the independent claim level. In more detail, claim 32 is cast from the perspective of a mobile station and stipulates selecting a serving base station during soft handoff, receiving power control commands from the serving base station and at least one non-serving base station, varying the transmit power of a reverse rate control channel responsive to the serving base station's power

control commands, and varying the power of a reverse traffic channel responsive to the non-serving base station's power control commands.

One embodiment of this claim is expressed in Table 1 of the instant application, on p. 22, wherein lines 6-14 explain that the mobile station 100 varies the transmit power of its rate control channel responsive to serving base station commands, and the transmit power of its traffic channel responsive to the non-serving base station commands. Fig. 6 illustrates an implementation supporting Table 1 power control, wherein the rate control channel power is at a fixed offset relative to the pilot, and the traffic channel power is at a variable offset. Table 2 on p. 29, Table 3 on p. 33, and Table 4 on p. 37 illustrate further embodiments, with Figs. 5, 6, and 9-11, illustrating various approaches to decoupling power control of the reverse rate control channel from the reverse traffic channel.

Independent claims 25 and 78 may be characterized as the base station method and apparatus claims, respectively, that complement the mobile station apparatus of claim 57 and/or the mobile station method of claim 1. In claim 25, a base station method of controlling the transmit power of a mobile station is based on determining whether the base station is a serving or non-serving base station. If the base station is operating as a serving base station, it generates power control commands for a first reverse link channel of the mobile station; if it is operating as a non-serving base station, it generates power control commands for a second reverse link channel of the mobile station. As one example, such operation is explained at p. 23, lines 16-24, wherein power control command generation by a base station 12 is based on determining whether it is operating as a serving or non-serving base station.

For claim 78, a base station includes a receiver to receive reverse link transmissions from a mobile station, and power control logic to generate power control commands for a first reverse link channel of the mobile station is the base station is the serving base station, and generate power control commands for a second reverse link channel of the mobile station if the

base station is a non-serving base station. See, for example, Fig. 3, which is a functional block diagram of a base station 12. As detailed on p. 11, lines 12-18, the base station 12 includes a base station controller 202, a transceiver array 204, amplifier array 206, RF combiner 208, and receive multicoupler 210. Moreover, an embodiment of the power control logic is explained at p. 23, lines 16-24, wherein power control command generation by the base station 12 is based on determining whether it is operating as a serving or non-serving base station.

Further, the (dependent) claim pairs 11/12, 41/42, and 67/68 stipulate that the first reverse link channel transmit power is controlled by the serving base station commands if a channel gain criterion is met, and is controlled by the non-serving base station(s) if the channel gain criterion is not met. See, e.g., the instant application at p. 6, line 22 – p. 7, line 9, and at p. 42, line 19 – p. 43, line 6; see, also, Figs. 8-11 for various channel gain calculations and corresponding (allowable) gain thresholds.

Further, the (dependent) claim pairs 13/14, 45/46, and 71/72 stipulate that the second reverse link channel transmit power is controlled by the non-serving base station commands if the channel gain criterion is met, and is controlled by the serving base station if the channel gain criterion is not met. See, e.g., the instant application at p. 7, lines 1-7; p. 20, lines 1-2; and p. 24, line 2 – p. 25, line 5.

Further, dependent claims 19-21 and 74-76 stipulate that the mobile station transmits primary and second pilots, wherein the reverse rate control channel transmit power is fixed relative to the sum of all pilots, and wherein the reverse traffic control channel transmit power is fixed relative to the primary pilot and the primary pilot transmit power is controlled by the non-serving base stations. See, e.g., the instant application at p. 36, lines 5-18; Fig. 11; Table 4 on p. 37; and p. 37 line 16 – p. 38, line 22.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Rejection of claims 1, 2, 5-9, 23-26, 32, 35-39, 57, 58, 61-65, 78, 79 and 82 under 35 U.S.C. § 102(e)

The examiner rejects claims 1, 2, 5-9, 23-26, 32, 35-39, 57, 58, 61-65, 78, 79 and 82 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,434,367 to Kumar et al. (hereinafter "Kumar").

B. Rejection of claims 3, 4, 10-17, 19-22, 27-30, 33, 34, 40-51, 53-56, 59, 60, 66-72, 74-77, 80, 81, 83, and 84 under 35 U.S.C. § 103(a)

The examiner rejects claims 3, 4, 10-17, 19-22, 27-30, 33, 34, 40-51, 53-56, 59, 60, 66-72, 74-77, 80, 81, 83, and 84 under 35 U.S.C. § 103(a) as being obvious over Kumar, in view of U.S. Published Application 2002/0142791 to Chen et al. (hereinafter "Chen '791").

C. Rejection of claims 18, 31, 52, 73, and 85 under 35 U.S.C. § 103(a)

The examiner rejects claims 18, 31, 52, 73, and 85 under 35 U.S.C. § 103(a) as being obvious over Kumar, in view of U.S. Published Application 2002/0165004 to Chen et al. (hereinafter "Chen '004").

VII. ARGUMENT

A. Statements of Controlling Law

1. The law of anticipation.

The first step of any anticipation analysis is claim construction, and the second step involves comparing the properly construed claim to the prior art. Helifix Ltd. v. Blok-Lok, Ltd., 208 F.3d 1339, 54 U.S.P.Q..2d 1299 (Fed. Cir. 2000). As for the first step, claim construction during prosecution necessarily differs from judicial claim construction in that examiners must give claim terms their broadest reasonable interpretation. MPEP, § 2111. Nonetheless, examiners must construe the claim terms consistent with the meanings that one skilled in the art would assign. In re Cortright, 165 F.3d 1353, 49 U.S.P.Q.2d 1464 (Fed. Cir. 1999). Examiners

are further obligated to construe claim terms consistent with the specification. In re Hyatt, 211 F.3d 1367, 54 U.S.P.Q.2d 1664 (Fed. Cir. 2000).

As for the second step of comparing the properly construed claim to the prior art, a finding of anticipation under 35 U.S.C. § 102 is proper only if the cited reference discloses each and every limitation of the claimed invention, is enabling, and describes the claimed invention sufficiently to have placed it into the possession of one of ordinary skill in the art. In re Paulson, 30 F.3d 1475, 31 U.S.P.Q.2d 1671 (Fed. Cir. 1994). More succinctly, the law of anticipation requires that the allegedly anticipating reference disclose each and every limitation of the claimed invention. Moba, B.V. v. Diamond Automation, Inc., 325 F.3d 1306, 66 U.S.P.Q.2d 1429 (Fed. Cir. 2003). See, also, In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990) (stating that a prior art reference anticipates the claim in question only if every element of the claimed invention is identically shown in the reference in the same arrangement as claimed).

Evaluation of whether the reference in question discloses each and every limitation of the claimed invention considers both the explicit and inherent teachings of the reference. Put simply, a reference may expressly or inherently disclose the claimed invention. Rowe v. Dror, 112 F.3d 473, 42 U.S.P.Q.2d 1550 (Fed. Cir. 1997). Whether the reference inherently discloses a feature of the claimed invention is a factual question. To that end, evidence may be introduced on the factual issue of whether a claim limitation is inherent in a prior art reference. Continental Can Co. USA v. Monsanto Co., 948 F.2d 1264, 20 U.S.P.Q.2d 1746 (Fed.Cir.1991).

Indeed, claim anticipation as a whole is a question of fact. In re Berger, 279 F.3d 975, 61 U.S.P.Q.2d 1523 (Fed. Cir. 2002). A factual finding of anticipation by the Board of Patent Appeals and Interferences is judicially reviewed for substantial evidence. In re Gartside, 203 F.3d 1305, 53 U.S.P.Q.2d 1769 (Fed. Cir. 2000). Thus, the reviewing court examines the factual record developed by the Patent and Trademark Office (PTO) during examination and

appeal of the patent application in question to determine whether substantial evidence supports the finding of anticipation.

Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." In re Zurko, 258 F.3d 1379, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001) (quoting Consol. Edison Co. v. NLRB, 305 U.S. 197, 59 S.Ct. 206 (1938)). In terms of developing a factual record during examination supporting the finding of anticipation, the PTO generally must show a sound basis for believing that the claimed invention is the same as the prior art and, upon such a showing, the burden shifts to the applicant to show they are not the same. In re Spada, 911 F.2d 705, 15 U.S.P.Q.2d 1655 (Fed. Cir. 1990). That is, the applicant rebuts the prima facie case of anticipation by submitting evidence showing that the prior art is not the same as the claimed invention.

2. The law of obviousness.

As explained in Section 2142 of the MPEP, the examiner bears the initial burden of making out a prima facie case of obviousness under 35 U.S.C. § 103. Establishing the prima facie case depends on meeting three basic criteria: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP, § 2142.

The prior art relied upon by the examiner in advancing an obviousness rejection must teach or suggest the claimed combination and a reasonable expectation of success with regard to making the claimed combination, and it is legally impermissible for the examiner to rely on the applicant's disclosure for such teachings. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). More specifically, the examiner bears the burden of presenting a convincing line of reasoning as to why the skilled artisan would have found the claimed invention obvious in light

of the teachings of the references. Ex parte Clapp, 1985 WL 71951, 227 U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985).

Ultimately, whether an invention is obvious over the prior art is a question of law, supported by an underlying factual analysis. In re Berg, 320 F.3d 1310, 65 U.S.P.Q.2d 2003 (Fed. Cir. 2003). More significantly, with respect to the examiner's obviousness rejection, the determination of whether there is a motivation or suggestion to combine references is a factual question based on specific findings. Gartside 203 F.3d at 1314. On that point, the substantive question is whether one of ordinary skill in the art would have been motivated to combine the references in question. Winner International Royalty Corp. v. Wang, 202 F.3d 1340, 53 U.S.P.Q.2d 1580 (Fed. Cir. 2000).

B. Independent claims 1 and 57 are not anticipated by Kumar.

Kumar anticipates claims 1 and 57 only if it discloses each and every limitation of the invention as claimed. Moba 325 F.3d at 1321. Thus, to anticipate claim 1 or claim 57, Kumar must teach varying a first transmit power level of a mobile station on a first reverse link channel responsive to power control commands from a serving base station, and teach varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station. At p. 3, Item 4 of the Final Rejection, the examiner states that Kumar discloses the claimed limitations of claims 1 and 57 at col. 5, lines 46-67, and at col. 6, lines 27-31.

In its entirety, Kumar at col. 5, lines 46-67 states:

> According to the cdma2000 standard, each base station 110 monitors the receive power level of the reverse-link channel signals transmitted by mobile unit 112. Each different forward-link FCH (or forward-link DCCH) transmitted from each base station to the mobile contains a periodically repeated power control (PC) bit that indicates whether that base station believes the mobile should increase or decrease the transmit power level of its reverse-link channel signals. If the current PC bits in a forward-link FCH indicate that the mobile should decrease its transmit power level, the mobile will decrease its transmit power level, even if the current PC bits in all of the other forward-link FCHs from the other legs of the soft handoff indicate that the mobile should increase its power level. Only when the

> current PC bits in the forward-link FCHs from all of the legs indicate that the mobile should increase its transmit power level will the mobile do so. This power control technique enables the mobile to transmit at a minimal acceptable power level in order to maintain communications while efficiently using the possibly limited power available at the mobile and reducing the possibility of interference at the base stations with reverse-link signals transmitted from other mobile units.

(Emphasis added.)

Thus, Kumar at col. 5, lines 46-67, does no more than explain "standard" power control in cdma2000 systems, which is the same explanation the instant application provided in its background at p. 4, lines 2-9. In other words, the cited passage of Kumar describes the classic "OR" or the downs and "AND" of the ups power control scheme that the instant application expressly changes. These teachings of Kumar not only do not disclose the invention of claims 1 and 57, they teach exactly the opposite: i.e., any active set base station can force the reverse link power of all reverse link channels of the mobile station, independently from the other (serving and non-serving) base stations in the active set.

The other passage of Kumar cited by the examiner as supporting his anticipation rejection of claims 1 and 57 (i.e., Kumar at col. 6, lines 27-31) in its entirety states that:

> The present invention is directed to a technique for transmitting power control signals from a base station to a mobile, where the mobile uses those power control signals to control the transmit power level of its reverse-link channels. For cdma2000 systems, the PC bits of the power control sub-channel are transmitted using the common power control channel, which is decoupled from any other forward-link signals transmitted from that base station to that mobile.

(Note that lines 27-35 appear in the above excerpt, to capture the full sentence beginning midway through line 31.)

It is important to note that the above passages says nothing about the specific response of the mobile station to base station power control commands; rather the cited passage of Kumar states only that a mobile station uses the power control commands received from a base station to control the reverse link power of its reverse link channels. That generic statement cannot be argued as anticipating the claimed limitations of controlling the transmit power of first

reverse link channel being transmitted by a mobile station responsive to power control commands from a serving base station, and controlling the transmit power of a second reverse link channel from the mobile station responsive to power control commands from a non-serving base station. Indeed, the cited passage of Kumar references only one base station, and makes no mention of serving versus non-serving base station designations. This section of Kumar is so broad, it can only be understood as supporting the erroneous proposition that any mention of reverse link power control in any reference, no matter how generic or off-the-mark, supports anticipation.

In short, the examiner cites two sections of Kumar in support of his anticipation rejections of claims 1 and 57. The first section he cites teaches an approach to power control that is antithetical to the claimed approach, and the second section he cites is so generic in its description of power control as to be meaningless in the anticipation analysis. The Final Rejection thus does not establish a factual record from which anticipation can be credibly argued.

It is also helpful in assessing the merit of the examiner's anticipation rejections of claims 1 and 57 to recognize that the examiner's rejection arguments in no way acknowledge the different contexts of the instant invention and Kumar. In the instant invention, power control by one active set of base stations yields different transmit power control for different reverse link channels being transmitted by a mobile station, by allowing the serving base station to control the power of the mobile station's reverse rate control channel independently from the non-serving base station's (or stations') control of the mobile station's reverse traffic channel.

Kumar is directed at a different problem, i.e., reducing the reactivation time need to transition a mobile station from a dormant or suspended state to the active state. See, e.g., the Abstract of Kumar. As Kumar states in its summary:

> The present invention is directed to a technique for transmitting power control signals from a base station to a mobile, where the mobile uses those power

> control signals to control the transmit power level of its reverse-link channels. For cdma2000 systems, <u>the PC bits of the power control sub-channel are transmitted using the common power control channel, which is decoupled from any other forward-link signals transmitted from that base station to that mobile. The ability of base stations to use decoupled forward-link channels in order to transmit their power control signals to a mobile enables a mobile to operate with different active sets for the forward and reverse links.</u> This enables forward-link data traffic to be implemented using a simplex mode, even when the mobile is operating in soft handoff in the reverse link. This in turn greatly reduces the reactivation time involved in transitioning a mobile from either the suspended state or the control hold state to the active state, which is particularly desirable for bursty (i.e., intermittent) packet data flow, as opposed to continuous circuit-oriented voice messaging.

(Emphasis added.)

Thus, Kumar does not relate to, describe, or even hint at, a system based on one active, set of serving and non-serving base stations, but rather on a system that explicitly defines different active sets for the forward and reverse links. See, for example, Kumar at col. 16, lines 49-56, where its is plainly stated that power control in Kumar seeks to decouple the Forward Common Power Control Channel (F-PCCH), so that a serving base station can control the reverse link power (i.e., the collective transmit power) of an active mobile station.

Because Kumar does not teach varying the power of first and second reverse link channels being transmitted by a mobile station, it cannot stand as an anticipating reference for claims 1 and 57, nor for any of their dependent claims.

C. <u>Independent claim 32 is not anticipated by Kumar.</u>

Claim 32 specifies a method of controlling a mobile station's transmit power for a <u>reverse link rate control channel</u> responsive to power control commands from <u>a serving base station</u>, and controlling the mobile station's transmit power for a <u>reverse link traffic channel</u> responsive to power control commands from a <u>non-serving base station</u>. In rejecting this claim, the examiner cites to Kumar at col. 5, lines 46-67 and at col. 6, lines 27-31.

As presented in its entirety above, the col. 5 passage of Kumar cited by the examiner explains standard (CDMA) power control, wherein a mobile station decreases its reverse link

transmit power (all channels) if any base station in its active set tells it to go down, and increases its reverse link transmit power (all channels) only if all base stations in its active set tell it to go up. The passage thus cannot be argued in any legally sufficient manner as anticipating claim 32, because a reference cannot anticipate unless it shows every claimed element identically. Bond 910 F.2d at 832. Nor can the generic passage at col. 6, lines 27-31 in Kumar support anticipation, because it does not more than identify power control as a topic of interest.

Indeed, nowhere in Kumar is there any disclosure relevant to the limitations of claim 32, i.e., Kumar does not disclose a mobile station power control method wherein reverse rate control channel transmit power is controlled by serving base station power control commands and reverse traffic control channel transmit power is controlled by non-serving base station power control commands. Thus, Kumar does not anticipate claim 32 or any of its dependent claims.

D. Independent claims 25 and 78 are not anticipated by Kumar.

Independent claims 25 and 78 are directed to a base station method and apparatus for determining whether the base station is a serving base station for forward link communications, power controlling a first reverse link channel if the base station is the serving base station, and power controlling a second reverse link channel if the base station is not the serving base station. The examiner uses the same two cites to Kumar (at col. 5 and at col. 6) to reject claims 25 and 78 as used to reject all other independent claims. (See the Final Office Action at Item 4 on p. 3.)

Specifically, the examiner's rejection arguments offers the conclusory assessment that Kumar teaches "serving and non-serving" base stations power controlling a mobile station's reverse link channels. See, e.g., the Final Rejection at p. 3, Item 4, wherein the last line on that page states that "each base station (serving and non-serving) power controls said reverse link

channels." Not only is that assertion in error as regards the teachings of Kumar, it glosses over the actual limitations of the claims, which require a base station that power controls a first reverse link channel of a mobile station if it determines that it is a serving base station, and power control a second reverse link channel of the mobile station if it determines that it is a non-serving base station.

Kumar does not teach the claimed limitations, and the examiner's anticipation rejection actually ignores Kumar's teachings, which make clear there is no anticipation. For example, Kumar in its entirety is directed to establishing different forward and reverse link active sets—see Kumar's Abstract and Summary, throughout its detailed description. More particularly, Kumar states at col. 16, lines 49-54, that:

> The prior-art cdma2000 standard does not allow the F-PCCH to control the reverse-link dedicated control channel (R-DCCH) power or the reverse-link traffic channel (R-FCH or R-SCH) power. The present approach removes this restriction so that the F-PCCH can control the reverse-link transmit power while a mobile is in the active state. This approach provides power control at the mobile unit when the forward link and the reverse link have different active sets.

Notably, this critical passage in Kumar, nor any other section of Kumar, discloses or even suggests controlling the transmit power of a first reverse link channel being transmitted by a mobile station based on serving base station power control commands, while controlling the transmit power of a second reverse link channel being transmitted by the mobile station based on non-serving base station power control commands. As such, Kumar cannot be argued as anticipating claims 25 or 78, or any of their dependent claims.

E. <u>Dependent Claims 3, 4, 10-17, 19-22, 27-30, 33, 34, 40-51, 53-56, 59, 60, 66-72, 74-77, 80, 81, 83, and 84 are not obvious over Kumar and Chen '791.</u>

The identified claims in the instant application are not obvious over the examiner's argued-for combination of Kumar and Chen '791 because the combination does not teach or suggest every limitation of the invention as defined by the instant application's independent claims 1, 25, 32, 57 and 78. More particularly, the obviousness rejections fail because Kumar,

the primary reference does not teach or suggest controlling the transmit power of a first reverse link channel being transmitted by a mobile station based on serving base station power control commands, while controlling the transmit power of a second reverse link channel being transmitted by the mobile station based on non-serving base station power control commands. Such limitations, whether cast from the perspective of a mobile station method/apparatus as in claims 1, 32, and 57, or from the perspective of a base station method/apparatus, as in claims 25 and 78, are not found in Kumar.

Thus, even if Kumar and Chen '791 can be combined in the sense argued for by the examiner, and even if there is a motivation to combine Chen '791 with Kumar, the argued-for combination would not yield the invention of independent claims 1, 25, 32, 57, and 78.

F. Dependent claims 18, 31, 52, 73, and 85 are not obvious over Kumar and Chen '004.

The identified claims in the instant application are not obvious over the examiner's argued-for combination of Kumar and Chen '004 because the combination does not teach or suggest every limitation of the invention as defined by the instant application's independent claims 1, 25, 32, 57 and 78. More particularly, the obviousness rejections fail because Kumar, the primary reference does not teach or suggest controlling the transmit power of a first reverse link channel being transmitted by a mobile station based on serving base station power control commands, while controlling the transmit power of a second reverse link channel being transmitted by the mobile station based on non-serving base station power control commands. Such limitations, whether cast from the perspective of a mobile station method/apparatus as in claims 1, 32, and 57, or from the perspective of a base station method/apparatus, as in claims 25 and 78, are not found in Kumar.

Thus, even if Kumar and Chen '004 can be combined in the sense argued for by the examiner, and even if there is a motivation to combine Chen '004 with Kumar, the argued-for combination would not yield the invention of independent claims 1, 25, 32, 57, and 78.

G. <u>Dependent claim pairs 11/12, 41/42, and 67/68 are not obvious over Kumar in view of Chen '791.</u>

The (dependent) claim pairs 11/12, 41/42, and 67/68 stipulate that the first reverse link channel transmit power is controlled by the serving base station commands if a channel gain criterion is met, and is controlled by the non-serving base station(s) if the channel gain criterion is not met. See, e.g., the instant application at p. 6, line 22 – p. 7, line 9, and at p. 42, line 19 – p. 43, line 6; see, also, Figs. 8-11 for various channel gain calculations and corresponding (allowable) gain thresholds.

As a representative example, claim 11 stipulates that varying a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from a serving base station comprises determining if the first channel gain meets a predetermined criterion, and varying the transmit power level of the mobile station on the first reverse link channel if the first channel gain meets the predetermined criterion (as computed in claim 10). To this, claim 12 adds the step of varying the first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non-serving base station if the first channel gain does not meet the predetermined criterion.

On pages 13 and 14 of the Final Office Action, the examiner states that the combination of Kumar and Chen '791 make claims 11 (and 67) and 12 (and 68) obvious. To support this, the examiner refers to Chen '791 at Section 0033, which in its entirety states that:

> According to at least one of the CDMA Spread Spectrum System standards, incorporated by reference herein, in addition to the open loop and closed loop power control schemes, the MS adjusts the output power level by attributes of a code channel as specified by the standard. In CDMA-2000, the MS sets the output power of the enhanced access channel header, the enhanced access channel data, and the reverse common control channel data relative to the output power level of the reverse pilot channel. The output power level of the reverse pilot channel is set by the open and closed loop power controls. The MS maintains a power level ratio between the code channel power level and the reverse pilot channel power level. The ratio may be defined by the data rate used in the code channel. Generally, a table provides the values for the ratio at different data rates. The ratio generally increases for higher data rates. A ratio equal to one or less than one may also be possible. At a ratio equal to one, the

> power level of the pilot channel as set by the power control loop 300 is equal to the power level of the code channel. During transmission of data on a traffic channel, the data rate and the traffic channel power level may be adjusted. The power level may be selected based on a relative power of the reverse link pilot. Once an allowable data rate is selected, a corresponding channel gain with respect to the reverse link pilot power level is used to set the traffic channel power level.

The cited passage of Chen '791 does no more than describe data-rate dependent traffic-to-pilot gain setting during standard CDMA closed loop power control. The cited functionality almost certainly is already implicitly used in Kumar, so the addition of Chen '791 to Kumar is a non-event, i.e., the addition produces no meaningful change in Kumar.

More importantly, the cited language in Chen '791 is self-evidently devoid of any teachings bearing on controlling the transmit power of a first reverse link channel responsive to serving base station commands if a channel gain criterion is satisfied, and controlling the transmit power of that first reverse link channel responsive to non-serving base stations if the channel gain parameter is not satisfied. As with virtually all of the examiner's obviousness arguments, the plain language and clear limitations of the claims is ignored, and irrelevant sections of the obviousness references are cited in support of repeating the applicant's claim language.

Simply put, the cited sections of Kumar and Chen '791 have no bearing on the limitations of claim pairs 11/12, 41/2, and 67/68, and the proffered obviousness rejections fails as a matter of law because Kumar plus Chen '791 do not result in the claimed invention.

H. <u>Dependent claim pairs 13/14, 45/46, and 71/72 are not obvious over Kumar in view of Chen '791.</u>

The (dependent) claim pairs 13/14, 45/46, and 71/72 stipulate that the second reverse link channel transmit power is controlled by the non-serving base station commands if the channel gain criterion is met, and is controlled by the serving base station if the channel gain criterion is not met. See, e.g., the instant application at p. 7, lines 1-7; p. 20, lines 1-2; and p. 24, line 2 – p. 25, line 5.

For example, claim 13 stipulates that varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station comprises determining if the first channel gain meets a predetermined criterion, and varying the transmit power level of the mobile station on the second reverse link channel if the first channel gain meets the predetermined criterion. To this, claim 14 adds the stipulation of varying the second transmit power level of the mobile station on the second reverse link channel responsive to power control commands from the serving base station if the first channel gain does not meet the predetermined criterion. Thus, the power of the second reverse link channel is varied responsive to non-serving base station commands if the channel gain criterion is met, and is varied responsive to the serving base station commands if the gain criterion is not met.

The examiner cites to Section 0033 of Chen '791 in his argument that Kumar plus Chen '791 makes claims 13/14, 45/46, and 71/72 obvious. The cited section of Chen '791 does no more than disclose that standard CDMA power control sets the gain of a reverse traffic channel relative to a reverse pilot channel based on data rate. This teaching has nothing to do with the actual limitations found in the rejected claims, and the obviousness rejection fails because Kumar plus Chen '791 does not teach or suggest the invention as claimed in any of claims 13, 14, 45, 46, 71 and 72.

I. <u>Claims 19, 20, 21, 74, 75 and 76 are not obvious over the combination of Kumar and Chen '791.</u>

The dependent claims 19-21 and 74-76 stipulate that the mobile station transmits primary and second pilots, wherein the reverse rate control channel transmit power is fixed relative to the sum of all pilots, and wherein the reverse traffic control channel transmit power is fixed relative to the primary pilot and the primary pilot transmit power is controlled by the non-serving base stations. See, e.g., the instant application at p. 36, lines 5-18; Fig. 11; Table 4 on p. 37; and p. 37 line 16 – p. 38, line 22.

As an example, claim 19 stipulates that the reverse link (for the mobile station) comprises a primary pilot channel and at least one secondary pilot channel, wherein the gain of the reverse traffic channel is fixed relative to the primary pilot channel. The examiner states on p. 16 of the Final Rejection that Kumar plus Chen '791 (at Section 0033) make this claim obvious. Because neither Kumar nor Chen '791 mention, or even allude to primary and second pilots, the rejection fails.

Further, as an example, claim 20 stipulates that the gain of the reverse rate control channel is fixed relative to the sum of the transmit power on all reverse link pilot channels. The examiner ignores the fact that neither Kumar or Chen '791, alone or in combination, address the claimed primary and secondary pilot channel concepts, and thus are utterly silent on setting the gain of a reverse rate control channel relative to the sum of (primary and secondary) pilots. Further demonstrating the examiner's all-purpose usage of Section 0033 of Chen '791, he again cites to Section 0033 despite it not mentioning anything relevant to the particular limitations being rejected.

Further, as an example, claim 21 stipulates that the mobile station varies its transmit power on the primary pilot channel responsive to power control commands from at least one non-serving base station. On p. 17 of the Final Rejection, the examiner simply states that Kumar plus Chen '791 teach the claimed limitation, without providing any meaningful guidance on where such teachings might be found in either reference.

In general, claims 19-21 and 74-76 address similar subject matter (primary and second pilots) and none of the subject matter explicitly included as limitations in those claims is found in Kumar or Chen '791, despite the examiner's repeated assertions that it is. Because Kumar in combination with Chen '791 do not teach or suggest the limitations of these rejected claims, the examiner's obviousness rejections fail as a matter of law.

VII. CLAIMS APPENDIX

The following claims are on appeal:

1. A method of controlling the transmit power of a mobile terminal in a mobile communication system, comprising:

varying a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from a serving base station; and

varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station.

2. The method of claim 1 wherein the first reverse link channel is a reverse rate control channel and the second reverse link channel is a reverse traffic channel.

3. The method of claim 2 wherein the gain of the reverse rate control channel is fixed relative to a reverse pilot channel and wherein the transmit power level of the mobile station on the reverse pilot channel is varied responsive to the power control commands from the serving base station.

4. The method of claim 2 wherein the gain of the reverse traffic channel is fixed relative to a reverse pilot channel and wherein the transmit power level of the mobile station on the reverse pilot channel is varied responsive to the power control commands from the at least one non-serving base station.

5. The method of claim 1 wherein varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station comprises:

receiving power control commands from one or more non-serving base stations; and

decreasing the second transmit power level if at least one of the non-serving base stations commands the mobile station to decrease its power level.

6. The method of claim 5 wherein varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station further comprises increasing the second transmit power level if all of the non-serving base stations command the mobile station to increase its power level.

7. The method of claim 5 further comprising varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from the serving base station.

8. The method of claim 7 wherein varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from the serving base station comprises decreasing the transmit power level of the mobile station if the serving base station command the mobile station to decrease its transmit power.

9. The method of claim 8 wherein varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from the serving base station further comprises increasing the transmit power of the mobile station on the

second reverse link channel if the serving base station and each non-serving base station commands the mobile station to increase its transmit power.

10. The method of claim 1 further comprising computing a first channel gain of one of the first and second reverse link channels relative to a third reverse link channel.

11. The method of claim 10 wherein varying a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from a serving base station comprises:

determining if the first channel gain meets a predetermined criterion; and

varying the transmit power level of the mobile station on the first reverse link channel if the first channel gain meets the predetermined criterion.

12. The method of claim 11 further comprising varying the first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non-serving base station if the first channel gain does not meet the predetermined criterion.

13. The method of claim 10 wherein varying a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non-serving base station comprises:

determining if the first channel gain meets a predetermined criterion; and

varying the transmit power level of the mobile station on the second reverse link channel if the first channel gain meets the predetermined criterion.

14. The method of claim 13 further comprising varying the second transmit power level of the mobile station on the second reverse link channel responsive to power control commands from the serving base station if the first channel gain does not meet the predetermined criterion.

15. The method of claim 10 further comprising computing a second channel gain of one of the first and second reverse link channels relative to the third reverse link channel.

16. The method of claim 10 wherein varying a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from a serving base station comprises:

determining if the second channel gain meets a first predetermined criterion;

determining if the second channel gain meets a second predetermined criterion; and

varying the transmit power level of the mobile station on the first reverse link channel if the first and second channel gains meet the first and second predetermined criterion respectively.

17. The method of claim 16 further comprising varying the first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non- serving base station if the first channel gain does not meet the first predetermined criterion.

18. The method of claim 1 further comprising varying a first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non-serving base station if the mobile station is in a discontinuous transmission mode.

19. The method of claim 2 wherein the reverse link comprises a primary pilot channel and at least one secondary pilot channel, and wherein the gain of the reverse traffic channel is fixed relative to the primary pilot channel.

20. The method of claim 19 wherein the gain of the reverse rate control channel is fixed relative to the sum of the transmit power on all reverse link pilot channels.

21. The method of claim 20 wherein the mobile station varies its transmit power on the primary pilot channel responsive to power control commands from at least one non-serving base station.

22. The method of claim 21 wherein the mobile station varies its transmit power on at least one secondary pilot channel responsive to power control commands from the serving base station such that the total transmit power on all reverse link pilot channels remains within predetermined limits.

23. The method of claim 1 wherein the first reverse link channel is a reverse pilot channel and the second reverse link channel is a reverse traffic channel.

24. The method of claim 1 wherein the first reverse link channel is a reverse rate control channel and the second reverse link channel is a reverse pilot channel.

25. A method of controlling the transmit power of a mobile terminal by a base station in a mobile communication system, comprising:

determining whether the base station is a serving base station for forward link communications;

power controlling a first reverse link channel if the base station is the serving base station;

power controlling a second reverse link channel if the base station is not the serving base station.

26. The method of claim 25 wherein the first reverse link channel is a reverse rate control channel and the second reverse link channel is a reverse traffic channel.

27. The method of claim 26 wherein the gain of the reverse rate control channel is fixed relative to a reverse pilot channel.

28. The method of claim 27 further comprising power controlling the reverse pilot channel if the base station determines that it is the serving base station.

29. The method of claim 26 wherein the gain of the reverse traffic channel is fixed relative to a reverse pilot channel.

30. The method of claim 29 further comprising power controlling the reverse pilot channel if the base station determines that it is a non-serving base station.

31. The method of claim 25 further comprising power controlling the reverse pilot channel by a non-serving base station if the mobile station is in a discontinuous transmission mode and the

received power on the reverse pilot channel is above a predetermined threshold at the non-serving base station.

32. A method of controlling the transmit power of a mobile terminal in a wireless communication system during a soft handoff wherein the active set for the mobile station includes two or more base stations, the method comprising:

selecting one of the base stations in the active set as the serving base station for forward link communications with the mobile terminal;

receiving power control commands from the serving base station and at least one non-serving base station in the active set;

varying a first transmit power level of the mobile station on a reverse rate control channel responsive to power control commands from a serving base station; and

varying a second transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from at least one non-serving base station.

33. The method of claim 32 wherein the gain of the reverse rate control channel is fixed relative to a reverse pilot channel and wherein the transmit power level of the mobile station on the reverse pilot channel is varied responsive to the power control commands from the serving base station.

34. The method of claim 32 wherein the gain of the reverse traffic control channel is fixed relative to a reverse pilot channel and wherein the transmit power level of the mobile station on the reverse pilot channel is varied responsive to the power control commands from the non-serving base station.

35. The method of claim 32 wherein varying the transmit power level of the mobile station on the traffic channel responsive to power control commands from at least one non-serving base station comprises:

receiving power control commands from one or more non-serving base stations; and

decreasing the second transmit power level if at least one of the non-serving base stations commands the mobile station to decrease its power level.

36. The method of claim 35 wherein varying the transmit power level of the mobile station on the reverse traffic channel responsive to power control commands from at least one non-serving base station further comprises increasing the second transmit power level if all of the non-serving base stations command the mobile station to increase its power level.

37. The method of claim 36 further comprising varying the transmit power level of the mobile station on the reverse traffic channel responsive to power control commands from the serving base station.

38. The method of claim 37 wherein varying the transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from the serving base station comprises decreasing the transmit power level of the mobile station on the reverse traffic channel if the serving base station commands the mobile station to decrease its transmit power.

39. The method of claim 38 wherein varying the transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from the serving base station further comprises increasing the transmit power of the mobile station on the reverse traffic

channel if the serving base station and each non-serving base station in the active set commands the mobile station to increase its transmit power.

40. The method of claim 33 further comprising computing a first channel gain of the reverse traffic channel relative to the reverse pilot channel.

41. The method of claim 40 wherein varying a first transmit power level of the mobile station on a reverse rate control channel responsive to power control commands from a serving base station comprises:

comparing the first channel gain to a predetermined minimum gain; and

varying the transmit power level of the mobile station on the reverse rate control channel if the first channel gain is not less than the predetermined minimum gain.

42. The method of claim 41 further comprising varying the transmit power level of the mobile station on the reverse rate control channel responsive to power control commands from at least one non-serving base station if the first channel gain is less than the predetermined minimum gain.

43. The method of claim 41 further comprising computing a second channel gain of the reverse rate control channel relative to the reverse pilot channel.

44. The method of claim 43 wherein varying a first transmit power level of the mobile station on a reverse rate control channel responsive to power control commands from a serving base station further comprises:

comparing the second channel gain to a normal gain;

varying the transmit power level of the mobile station on the reverse pilot channel and the reverse rate control channel if the second channel gain is equal to the normal gain; and

varying the transmit power level of the mobile station on the reverse rate control channel if the second channel gain is greater than the normal gain.

45. The method of claim 40 wherein varying a second transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from at least one non-serving base station comprises:

comparing the channel gain to a predetermined maximum gain; and

varying the transmit power level of the mobile station on the reverse traffic channel if the channel gain is more than the predetermined maximum gain.

46. The method of claim 45 further comprising varying the transmit power level of the mobile station on the reverse traffic channel responsive to power control commands from the serving base station if the channel gain is greater than the predetermined maximum gain.

47. The method of claim 34 further comprising computing a gain ratio of the reverse rate control channel to the reverse pilot channel.

48. The method of claim 47 wherein varying a first transmit power level of the mobile station on a reverse rate control channel responsive to power control commands from a serving base station comprises:

comparing the channel gain to a predetermined maximum gain; and

varying the transmit power level of the mobile station on the reverse rate control channel if the channel gain is not greater than the predetermined maximum gain.

49. The method of claim 48 further comprising varying the transmit power level of the mobile station on the reverse rate control channel responsive to power control commands from at least one non-serving base station if the channel gain is greater than the predetermined maximum gain.

50. The method of claim 49 wherein varying a second transmit power level of the mobile station on a reverse traffic channel responsive to power control commands from at least one non-serving base station comprises:

comparing the channel gain to a predetermined minimum gain; and

varying the transmit power level of the mobile station on the reverse traffic channel if the channel gain is not less than the predetermined minimum gain.

51. The method of claim 50 further comprising varying the transmit power level of the mobile station on the reverse traffic channel responsive to power control commands from the serving base station if the channel gain is less than the predetermined minimum gain.

52. The method of claim 32 further comprising varying the varying a transmit power level of the mobile station on the first reverse pilot channel responsive to power control commands from at least one non-serving base station if the mobile station is in a discontinuous transmission mode.

53. The method of claim 32 wherein the reverse link comprises a primary pilot channel and at least one secondary pilot channel, and wherein the gain of the reverse traffic channel is fixed relative to the primary pilot channel.

54. The method of claim 53 wherein the gain of the reverse rate control channel is fixed relative to the sum of the transmit power on all reverse link pilot channels.

55. The method of claim 54 wherein the mobile station varies its transmit power on the primary pilot channel responsive to power control commands from at least one non-serving base station.

56. The method of claim 55 wherein the mobile station varies its transmit power on at least one secondary pilot channel responsive to power control commands from the serving base station such that the total transmit power on all reverse link pilot channels remains within predetermined limits.

57. A mobile station comprising:

a receiver to receive power control commands from a serving base station and at least one non-serving base station, the serving and non-serving base stations forming an active set for the mobile station;

power control logic to:

vary a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from the serving base station;

vary a second transmit power level of the mobile station on a second reverse link channel responsive to power control commands from at least one non- serving base station; and

a transmitter to transmit signals on the first and second reverse link channels at the first and second transmit power levels respectively.

58. The mobile station of claim 57 wherein the first reverse link channel is a reverse rate control channel and the second reverse link channel is a reverse traffic channel.

59. The mobile station of claim 58 wherein the gain of the reverse rate control channel is fixed relative to a reverse pilot channel and wherein the power control logic varies the transmit power level of the mobile station on the reverse pilot channel responsive to the power control commands from the serving base station.

60. The mobile station of claim 58 wherein the gain of the reverse traffic channel is fixed relative to a reverse pilot channel and wherein the power control logic varies the transmit power level of the mobile station on the reverse pilot channel responsive to the power control commands from the at least one non-serving base station.

61. The mobile station of claim 57 wherein the power control logic decreases the second transmit power level if at least one of the non-serving base stations in the active set commands the mobile station to decrease its power level.

62. The mobile station of claim 61 wherein the power control logic increases the second transmit power level if all of the non-serving base stations in the active set command the mobile station to increase its power level.

63. The mobile station of claim 57 wherein the power control logic varies the transmit power of the mobile station on the second reverse link channel responsive to power control commands from all the base stations in the active set for the mobile station, including the serving base station.

64. The mobile station of claim 57 wherein the power control logic decreases the second transmit power level if the serving base station or any one of the non-serving base stations commands the mobile station to decrease its transmit power on the reverse traffic channel.

65. The mobile station of claim 57 wherein the power control logic increase the second transmit power level if all the base stations in its active set command the mobile station to increase its transmit power on the reverse traffic channel.

66. The mobile station of claim 57 further comprising computing a first channel gain of one of the first and second reverse link channels relative to a third reverse link channel.

67. The mobile station of claim 66 wherein the power control logic is operative to:

determine if the first channel gain meets a predetermined criterion; and

vary the transmit power level of the mobile station on the first reverse link channel if the first channel gain meets the predetermined criterion.

68. The mobile station of claim 67 further wherein the power control logic varies the first transmit power level of the mobile station on the first reverse link channel responsive to power control commands from at least one non-serving base station if the first channel gain does not meet the predetermined criterion.

69. The method of claim 67 further comprising computing a second channel gain of one of the first and second reverse link channels relative to the third reverse link channel.

70. The method of claim 69 wherein varying a first transmit power level of the mobile station on a first reverse link channel responsive to power control commands from a serving base station comprises:

determining if the second channel gain meets a first predetermined criterion;

determining if the second channel gain meets a second predetermined criterion; and

varying the transmit power level of the mobile station on the first reverse link channel if the first and second channel gains meet the first and second predetermined criterion respectively.

71. The mobile station of claim 66 wherein the power control logic is operative to:

determine if the first channel gain meets a predetermined criterion; and

vary the transmit power level of the mobile station on the second reverse link channel if the first channel gain meets the predetermined criterion.

72. The mobile station of claim 71 further wherein the power control logic varies the second transmit power level of the mobile station on the second reverse link channel responsive to

power control commands from the serving base station if the first channel gain does not meet the predetermined criterion.

73. The mobile station of claim 57 wherein the power control logic varies the transmit power of the mobile station on the first reverse link channel responsive to power control commands from non-serving base stations when the mobile station is in a discontinuous transmission mode.

74. The mobile station of claim 58 wherein the reverse link comprises a primary pilot channel and at least one secondary pilot channel, and wherein the gain of the reverse traffic channel is fixed relative to the primary pilot channel.

75. The mobile station of claim 74 wherein the gain of the reverse rate control channel is fixed relative to the sum of the transmit power on all reverse link pilot channels.

76. The mobile station of claim 75 wherein the power control logic varies the transmit power of the mobile station of the primary pilot channel responsive to power control commands from at least one non-serving base station.

77. The mobile station of claim 76 wherein the power control logic varies the transmit power of at least one secondary pilot channel responsive to power control commands from the serving base station such that the total transmit power on all reverse link pilot channels remains within predetermined limits.

78. A base station for a wireless communication network, comprising:

a receiver to receive signals from a mobile station on first and second reverse link channels at first and second received power levels respectively;

power control logic to:

determine whether the base station is a serving base station for forward link communications;

generate power control commands to power control a first reverse link channel if the base station is the serving base station;

generate power control commands to power control a second reverse link channel if the base station is a non-serving base station; and

a transmitter to transmit the power control commands to the mobile station;

79. The base station of claim 78 wherein the first reverse link channel is a reverse rate control channel and the second reverse link channel is a reverse traffic channel.

80. The base station of claim 79 wherein the gain of the reverse rate control channel is fixed relative to a reverse pilot channel.

81. The base station of claim 80 wherein the power control logic generates power control commands to power control the reverse pilot channel if the base station determines that it is the serving base station.

82. The base station of claim 78 wherein the power control logic generates a first power control command to power control the reverse pilot channel and a second power control command to power control the reverse rate control channel if the base determines that it is the serving base station.

83. The base station of claim 79 wherein the gain of the reverse traffic channel is fixed relative to a reverse pilot channel.

84. The base station of claim 83 further wherein the power control logic generates power control commands to power control the reverse pilot channel if the base station determines that it is a non-serving base station.

85. The base station of claim 78 further wherein the power control logic for a non-serving base station generates power control commands to power control the reverse pilot channel if the mobile station is in a discontinuous transmission mode and received power on the reverse pilot channel is above a predetermined threshold at the non-serving base station.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

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